

# Notice of Allowability

Application No.

10/630,457

Examiner

Dang T. Nguyen

Applicant(s)

SHIBATA ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1 August 2005.
2. ☒ The allowed claim(s) is/are 2-7 and 9-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
  1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

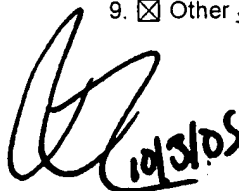
\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☒ Other Search history.



**RICHARD ELMS**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**

***Response to Amendment***

1. This office action is in response to applicant's amendment received on 8/5/05.  
Claims 1 and 8 have been amended. Claims 1 - 15 are pending on this application.  
Claims 1, 2, 8, 9 and 14 are independent claims.

***EXAMINER'S AMENDMENT***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Michael Markowitz on September 28, 2005.

The application has been amended as follows:

Claim 1, line 1 changes "currently Amended" To - -Canceled- -

Claim 8, line 1 changes "currently Amended" To - -Canceled- -

Claim 15, line 1 changes "Original" To - -Canceled- -

Claim 3, line 1 change "1" To - -2- -

Claim 4, line 1 change "1" To - -2- -

Claim 5, line 1 change "1" To - -2- -

Claim 6, line 1 change "1" To - -2- -

Claim 7, line 1 change "1" To - -2- -

Claim 10, line 1 change "8" To - -9- -

Claim 11, line 1 change "8" To - -9- -

Claim 12, line 1 change "8" To - -9- -

Claim 13, line 1 change "8" To - -9- -

Cancel claims 1, 8 and 15

***Allowable Subject Matter***

3. Claims 2 – 7 and 9 - 14 are allowed.
4. The following is an examiner's statement of reasons for allowance:

**With respect to claims 2 and 9**, in addition to other elements in the respective claims, the prior art of record fails to teach or suggest "wherein the stab resistance ( $R_s$ ) and the terminating resistance ( $R_{term}$ ) are given by:  $R_s = (N - 1) \times Z_{effdim}/N$  and  $R_{term} = Z_{effdim}$ ; where  $N$  represents the number of said connectors; and  $Z_{effdim}$  represents the effective impedance of a memory chip arrangement portion consisting of the bus and the memory chip".

**With respect to claim 14**, in addition to other elements in the respective claims, the prior art of record fails to teach or suggest "wherein the stab resistance ( $R_s$ ) and the terminating resistance ( $R_{term}$ ) meet an equation of:  $Z_{mb} = (R_s + Z_{effdim})/N$ ; where  $Z_{mb}$  represents wiring impedance of said motherboard;  $Z_{effdim}$  represents effective impedance of a memory chip arrangement portion consisting of the bus and the memory chip; and  $N$ , the number of the memory modules".

5. The prior art made of record and considered pertinent to the applicant's disclosure does not teach or suggest the claimed limitations. Sly et al. and Kyung, taken

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individually or in combination, do not teach the claimed invention of the stab resistance ( $R_s$ ) and the terminating resistance ( $R_{term}$ ) are given by:  $R_s = (N - 1) \times Z_{effdim}/N$  and  $R_{term} = Z_{effdim}$ , in combination with other limitations.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Prior art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Sly et al.	Patent No.: US 6,449,166 B1	Date of Patent: Sep. 10, 2002
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Kyung	Patent No.: US 6,754,132 B2	Date of Patent: Jun. 22, 2004
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#### ***Contact Information***

8. Any inquiry concerning this communication from the examiner should be directed to Dang Nguyen, who can be reached by telephone at (571) 272-1955. Normal contact times are M-F, 8:00 AM - 4:30 PM.

Upon an unsuccessful attempt to contact the examiner, the examiner's supervisor, Richard Elms, may be reached at (571) 272-1869.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, whose telephone number is (703)

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305-3900. The faxed phone number for organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the Status of an application may be obtained from the patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or [EBC@uspto.gov](mailto:EBC@uspto.gov).

Dang Nguyen 9/28/2005